Abstract of the Disclosure

An EGR gas cooling apparatus includes a heat exchanger coupled to an introduction route and a delivery route for a thermal medium fluid having a high boiling point of 150 degree Celsius or higher and placed at a body pipe formed with an EGR gas flowing route at one end of which an inlet for the EGR gas is arranged and at the other end of which an outlet for the EGR gas is arranged, thereby improving preventive effects on soot attachments and condensed liquid attachments on the flowing route for the EGR gas, and minimizing reduction of thermal conduction efficiency of the heat conduction pipe due to soot to render the apparatus perform the heat exchange between the EGR gas and the cooling medium liquid.